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REMARKS

In the December 4, 2003 Office Action, claims 7-12 are rejected and claims 1-6 and 13-15 are withdrawn from consideration as being directed to the non-elected invention. In response, claims 1-6 and 13-15 are cancelled. For the reasons discussed below, claims 7-12 are submitted to be in condition for allowance. Accordingly, reconsideration and allowance are requested.

The Office Action maintains the rejection of claims 7-12 as being obvious under 35 U.S.C. § 103(a) over the alleged prior art noted in the Background of the Invention in view of U.S. Patent No. 3,650,804 to Parisi. The Office Action refers generally to the previous Office Action. However, the Action provides no basis to support the position that it would be obvious to modify the discussion in the present specification based on the unrelated process of Parisi as suggested in the Action.

As noted in the previous response, the claimed invention is directed to a process for storing a particulate water-absorbent resin. Water-absorbent resins are normally produced as a powder of different size particles. The claimed process includes at least one step of

- 1) applying heat externally to heat at least one portion of the surface making contact with the particulate water-absorbent resin, 2) maintaining the temperature of at least one portion of the surface making contact with the particulate water-absorbent resin at 30-150°C, and
- 3) maintaining the temperature of at least one portion of the surface making contacting with the particulate water-absorbent resin above a temperature that is lower than a temperature of the particulate water-absorbent resin particles by 20°C, and thereafter storing the particulate water-absorbent resin. The alleged admitted prior art and the cited art of record either alone or in combination do not disclose or suggest the claimed process steps.

The rejection appears to be based primarily on the alleged admitted prior art in the specification which recognizes the problem of the particles agglomerating. Although not specifically identified in the Action, the rejection appears to refer to the discussion in the Background of the Invention. The Background of the Invention discusses generally the problem of agglomeration of water-absorbent resin particles and that the agglomerated water-absorbent resin particles can adhere to the pulverizer or to the outlet of the pulverizer. As correctly noted in the Action, this passage does not provide a solution to the problem of agglomeration of the water-absorbent resin particles. This passage does not suggest that one skilled in the art recognized that a solution to the problem of agglomeration exists or that agglomeration can be avoided. Furthermore, this passage fails to provide any suggestion to one of ordinary skill in the art how to avoid the agglomeration of the water-absorbent resin particles.

U.S. Patent No. 3,650,804 to Parisi is cited as disclosing a process for heating a liquid. The Action contends that a disclosure of heating a liquid is the same “concept” used by the invention. The rejection of claims 7-12 is based on the misplaced position that it would be obvious to heat water-absorbent resin particles in view of a disclosure of heating a liquid synthetic resin sealant. As noted above, the claimed invention is directed to preventing agglomeration of water-absorbent resin particles. Contrary to the assertion in the Action, Parisi does not show a solution to particulate agglomeration. At best, Parisi discloses a process to reduce the viscosity of a liquid; not preventing agglomeration of particles. The Action fails to present an analogy between the chemical and molecular properties that effect changes in viscosity of a liquid and the physical properties and static electricity that effect agglomeration of the particles.

Preventing agglomeration of solid particles is not analogous to reducing the viscosity of a liquid. The Action provides no basis to support the position that it would be obvious to one of ordinary skill in the art to heat water-absorbent resin particles. Furthermore, the Action provides no basis for one of ordinary skilled in the art having an expectation of success in reducing or preventing agglomeration of water-absorbent resin particles by the claimed process.

Contrary to the suggestion in the Action, Parisi is clearly not analogous to the claimed invention. Parisi has no relation to the production or handling of water-absorbent resin particles. It appears that the Action is attempting to equate the "fluidity" of particles with changes in viscosity of a liquid. This analogy is clearly misplaced.

It is well known by those skilled in the art that changes in viscosity of a liquid is directly related to the temperature of the liquid. However, the Action has provided no basis or support for the position that it is known or obvious to adjust the temperature of water-absorbent resin particles to prevent agglomeration. Clearly, agglomeration of fine particles has no relation to and is not analogous to changes in viscosity of the liquid.

Parisi has no relation to the claimed invention of preventing or inhibiting agglomeration of water-absorbent resin particles. The process of the present invention heats at least one surface of the apparatus making contact with the water-absorbent resin particles to prevent agglomeration of the particles. The heating according to the claimed invention does not result in a change in viscosity of the resin as in Parisi. The process of the claimed invention prevents clogging of the storage container and the pulverizer that is often experienced in the prior art processes.

Parisi provides no suggestion of processing or handling particles of any kind or preventing agglomeration of particles. It is unclear how the Action contends that changes in

viscosity of a liquid resin as in Parisi is even remotely relevant to the problem of agglomeration of solid particles. Parisi relates to a process for impregnating a porous cast body with a liquid synthetic resin sealant by contacting the porous cast body with the sealant under pressure. A positive pressure is applied to the liquid sealant according to the process of Parisi to force the liquid synthetic resin sealant through the pores of the cast body. The liquid synthetic resin sealant is then cured within the pores to reduce the permeability of the resulting porous body. The synthetic resin sealant of Parisi is a liquid resin such as an epoxy-type resin that includes a curing agent. As noted in Parisi, the liquid resin is generally highly viscous so that the resin cannot penetrate the interstices of the porous body. To improve the permeability of the liquid sealant, Parisi heats the liquid sealant and applies a pressure to force the liquid into the porous body where the liquid resin can be cured. This clearly has no relation to the claimed invention.

As noted in the previous Action, Parisi heats a liquid synthetic resin to reduce the viscosity of the resulting resin. However, the Action has provided no connection between the claimed water-absorbent resin particles and the liquid resin sealant of Parisi. The Action points to no disclosure in Parisi that would suggest to one of ordinary skill in the art that heat applied to water-absorbent resin particles can inhibit or prevent agglomeration. Furthermore, one skilled in the art would clearly not look to Parisi which relates only to liquid resins for a solution to the problem of agglomeration of particles. Reducing the viscosity of a liquid resin as in Parisi is not analogous or equivalent to preventing agglomeration of particles, and particularly preventing agglomeration of water-absorbent resin particles.

The Action has not identified the necessary incentive or motivation for heating water-absorbent resin particles. The process of Parisi which relates to reducing the viscosity of a liquid resin does not provide the necessary suggestion or motivation. The Action has failed

to provide any basis to support the position that a disclosure directed to heating a liquid resin provides any motivation to heat water-absorbent resin particles.

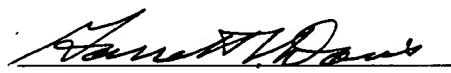
The Action has also failed to identify or provide any sufficient basis that one of ordinary skill in the art would consider water-absorbent resin particles analogous to a liquid resin sealant and that a process for treating a liquid resin sealant would have any beneficial effect on water-absorbent resin particles. Parisi clearly provides no expectation of success that heating water-absorbent resin particles will inhibit or prevent agglomeration of the water-absorbent resin particles. Parisi provides no motivation to modify the alleged admitted prior art as suggested in the Action since Parisi provides no expectation of success in obtaining any beneficial results by the heating step.

The Action has failed to set forth prima facie obviousness based on the alleged admitted prior art and Parisi. Parisi provides no suggestion of heating water-absorbent resin particles or that agglomeration of water-absorbent resin particles can be prevented or inhibited. Reducing the viscosity of the liquid resin sealant of Parisi does not provide the necessary motivation, incentive or expectation of success to heat water-absorbent resin particles to prevent or inhibit agglomeration. There is no basis in the art of record for the position in the Action that one of ordinary skill in the art would be guided to prevent agglomeration of water-absorbent resin particles by applying heat to the apparatus. The attempted analogy in the Action of the claimed water-absorbent resin particles with the changes in viscosity of the liquid resin sealant is misplaced. Accordingly, the Action has failed to demonstrate that it would be obvious to one of ordinary skill in the art to heat the apparatus that contacts the water-absorbent resin particles to prevent or inhibit agglomeration of the particles. Thus, claim 7 is not obvious over the alleged admitted prior art in view of Parisi.

Claims 8-12 are also allowable as depending from an allowable base claim and for reciting additional features of the invention that are not disclosed in the alleged admitted prior art and Parisi. Parisi has no relation to the claimed water-absorbent resin particles and instead only relates to impregnating a porous body with a liquid resin sealant. The alleged admitted prior art and Parisi do not disclose a process for storing surface crosslinked particles of a water-absorbent resin where the particles are heated to prevent agglomeration as in claim 8. The art of record also fails to disclose surface crosslinked water-absorbent resin particles containing a polyhydric alcohol as in claim 9, the absorption capacity under load as in claim 10, the partially neutralized carboxylic acid salt of claim 11, or the absorbent resin obtained by drying at 160°C to 250°C as in claim 12 either alone or in combination with the process steps of claim 7. Thus, claims 8-12 are not obvious over the art of record.

In view of the above comments, claims 7-12 are not obvious and are submitted to be in condition for allowance. Accordingly, reconsideration and allowance are requested.

Respectfully submitted,


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